AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 of 30

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0003	06-Nov-2002	W13G86-2259-	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
DEPT. OF THE ARMY N E DISTRICT, CORPS OF 696 VIRGINIA CONCORD MA 01742-	DACW33	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. DACW33-03-B-0002
	X	9B. DATED (SEE ITEM 11) 08-Oct-2002
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Amendment necessary revise Bidding Schedule, Specification Sections, and to extend the bid opening

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 06-Nov-2002

SECTION 00010 - SOLICITATION CONTRACT FORM

The required response date/time has changed from 08-Nov-2002 02:00 PM to 22-Nov-2002 02:00 PM.

SECTION 00100 – BIDDING SCHEDULE

The previous Bidding Schedule is deleted in its entirety and replaced with the following:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0001		1	Lump Sum	$		$	

MOBILIZATION AND DEMOBILIZATION
FFP
PURCHASE REQUEST NUMBER: W13G86-2259-8360

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0002		2,627,000	Cubic Yard	$		$	

MAINTENANCE DREDGING
WITH OCEAN DISPOSAL OF DREDGED MATERIAL

*INCLUDES 579,000 CUBIC YARDS OF ALLOWABLE OVERDEPTH

FFP

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0003		1,486,000	Cubic Yard	$		$	

CAD CONSTRUCTION
WITH OCEAN DISPOSAL OF DREDGED MATERIAL

FFP

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0004		215,000	Cubic Yard	$		$	

CAD CONSTRUCTION
WITH UPLAND DISPOSAL OF DREDGED MATERIAL

FFP

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0005		1,428,000	Cubic Yard	$		$	

MAINTENANCE DREDGING
WITH CAD DISPOSAL OF DREDGED MATERIAL

*INCLUDES 261,000 CUBIC YARDS OF ALLOWABLE OVERDEPTH

FFP

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE		AMOUNT
0006		252,000	Cubic Yard	$		$	

MAINTENANCE DREDGING
FOR CAD CELL CAPS USING DREDGED MATERIAL

FFP

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE	AMOUNT
0007	UPLAND DISPOSAL AREA J&W DIKE CONSTRUCTION FFP	1	Lump Sum	$		$

NET AMT $

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE	AMOUNT
0008	DEBRIS REMOVAL FFP	100	Net Ton (2,000 LB)	$		$

NET AMT $

FOB: Destination

OPTIONAL BID ITEM

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT		UNIT PRICE	AMOUNT
0009		200,000	Cubic Yard	$		$
OPTION	ADDITIONAL CAD CAPACITY FFP CONSTRUCTION WITH OCEAN DISPOSAL OF DREDGED MATERIAL					

TOTAL AMOUNT – BASE BID AND OPTIONAL BID ITEM $_____

NOTE 1: OPTIONAL BID ITEM – Line Item no. 0009 is an optional bid item and may be exercised by the Government. If the Government chooses to exercise its option for this item a modification will be issued no later than 365 calendar days after receipt of a Notice to proceed with the Contract. A time extension of 30 calendar days will be included in the modification to exercise the option., and all work shall be completed within the time specified in Section 00800, SPECIAL CONTRACT REQUIREMENTS.

NOTE 2: Bidders must bid all items. This work will be awarded as a whole to one bidder, including optional item. The low bidder will be determined based on the price submitted for the base bid and optional bid item. The minimum work awarded will be the base bid.

MAINTENANCE DREDGING PROVIDENCE RIVER DACW33-03-B-0002
AMENDMENT No 0003 OF SOLICITATION DACW33-03-B-0002

CHANGES TO SPECIFICATIONS
Revised Sections

The sections listed below are deleted and replaced with revised sections of the same section number as indicated. Changes in the text are indicated by additions and deletions. Added text is identified by underscoring and deleted text is identified by overstrike.

DELETE SECTION: REPLACE WITH SECTION (DATED):
Section 01723 Section 01723 11/05/02
Section 02325 Section 02325 11/05/02

END OF AMENDMENT No. 0003

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01723

FIELD ENGINEERING FOR DREDGING

-- End of Section Table of Contents --

SECTION 01723

FIELD ENGINEERING FOR DREDGING

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Engineering Services

The Contractor shall furnish the required personnel, equipment, instruments, and transportation, as necessary to accomplish the required surveys. Reports and other data together with supporting material developed during the prosecution of the work shall be furnished to the Government. The Contractor shall also provide adequate professional supervision and quality control to assure the accuracy, quality, completeness, and progress of the work.

The Contractor shall provide and pay for the following field engineering services for the project:

a. Hydrographic and other survey work specified or required in execution of this project, except for surveys performed by the Government, as indicated in these specifications.

b. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.

1.2 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referenced in the text by basic designation only. The Army Corps of Engineers references below may be viewed or downloaded free of charge via the Internet (http://www.hnd.usace.army.mil/techinfo/).

U.S. ARMY CORPS OF ENGINEERS

EM 1110-1-1002	(1996) SURVEY MARKERS AND MONUMENTATIONS
EM 1110-2-1003	(2002) HYDROGRAPHIC SURVEYING
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems

1.3 DEFINITIONS

1.3.1 Survey Datum

The Government will and the Contractor shall perform all surveys using the the survey datum indicated in the General Notes on the drawings.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Survey Plans; G, C.

The Contractor shall submit, as part of the Quality Control Plan, a detailed plan describing the survey methods to be used during the work. The plan shall include the equipment to be utilized, tidal data, general site plan map, line designation map, calibration procedures to be used, expected horizontal and vertical accuracies, and pertinent information to describe the methods, and results to be obtained. Field surveys shall not begin until these plans are approved.

Layout Plan; G, C.

A complete plan of the dredging areas showing the horizontal layout of all physical and electronic ranges to be used for horizontal control. The drawings shall be drawn at a scale sufficiently large to show all pertinent details. The drawings shall be submitted as blue or black lines on a white background.

Charts..

Current and tide charts to be used for the area(s) being dredged shall be submitted.

Survey Personnel.

Furnish a listing of the personnel who will perform the survey work required by this contract. The listing shall include a brief summary of the hydrographic survey experience of each person. The list shall be submitted prior to the preconstruction conference.

SD-05 Design Data

Field Survey Data.

Submit field data; depth sounder rolls, corrected for tide, and corresponding boat plots; daily logs; and quantity computations. Submit data sufficient for the Government to reproduce the Contractor's survey plot by referring only to this field data.

The electronic field data, including XY coordinates (points), and Z depths (elevations) in ASCII file format, shall be submitted on a daily basis with the CQC reports. Deficiencies shall be corrected and a re-survey of the area shall be performed, as necessary to ensure correction has been achieved. Data shall be submitted in a readable and usable format, utilizing industry recognized standard file formats and extensions. Data shall be submitted with a commercially available software program and technical support to provide the on-site capability to read and print the data.

Electronic Tracking System.

The Contractor shall furnish required discs, CD-ROM, and charts to the Contracting Officer.

1.5 GENERAL HYDROGRAPHIC SURVEY REQUIREMENTS

All hydrographic surveys for this project shall follow the mandatory criteria given in EM 1110-2-1003 for the "Navigation and Dredging Support Surveys" class of survey as a minimum.

Survey lines may be run either perpendicular to the channel limits at 50 foot offsets or longitudinal at 25 foot offsets. The lines shall clearly identify the toe and extend out to a minimum of three times the project depth to accurately depict the side slope.

1.6 HORIZONTAL POSITIONING PROCEDURES AND ACCURACIES

a. Vessel positioning systems utilized on this contract shall conform with the allowable horizontal positioning criteria in EM 1110-2-1003. The positioning system used shall be capable of meeting or exceeding the accuracy requirements and shall not exceed the allowable ranges where indicated. The Contractor may be required to demonstrate to the Government that its positioning system is capable of meeting or exceeding the accuracy requirements in EM 1110-2-1003.

b. All dredges, all survey vessels, and all towing equipment engaged in transport of dredged material, shall be equipped with automated electronic positioning and progress track-plotting equipment having a degree of accuracy commensurate with EM 1110-2-1003. In addition, dredges shall have production recording and efficiency optimizing data collection equipment; capable of storing, plotting, and printing in-situ operational data.

1.7 ELECTRONIC TRACKING SYSTEM (ETS) FOR DREDGING AND OCEAN DISPOSAL VESSELS

The Contractor shall furnish an Electronic Tracking System (ETS) for surveillance of the movement and disposition of dredged material during excavation, ocean transit and disposal; CAD cell excavation and disposal, CAD cell filling and capping; and upland disposal operations. This ETS shall be established,operated and maintained by the Contractor to continuously track in real-time the horizontal location and draft condition of the disposal vessel for the entire dredging cycle, including dredging area and disposal area. The ETS shall be capable of displaying and recording in real-time the disposal vessel’s draft and location in an acceptable coordinate system which can be related to, or is directly based on the appropriate state plane coordinate system every 500 feet (at least) during loading cycle and during travel to disposal area, and every minute (at least) or every 200 feet of travel, whichever is smaller, while approaching within 1000 feet and within limits of disposal area.

1.7.1 ETS Standards

The Contractor shall provide an automated (computer) system and components to perform in accordance with EM 1110-1-2909. A copy of the EM can be downloaded at http://www.usace.army.mil/inet/usace-docs/eng-manuals. Horizontal location shall have an accuracy equal to +/- 10 feet (horizontal repeatability). Vertical (draft) data shall have an accuracy of +/- 0.5 foot. Horizontal location and vertical data shall be collected in sets and each data set shall be referenced in real-time to date and local time (to nearest minute), and shall be referenced to the same state plane coordinate system used for the survey(s) shown in the contract plans. The ETS shall

be calibrated as required, in the presence of the COR at the work location before disposal operations have started, and at 30-day intervals while work is in progress. The Contracting Officer shall have access to the ETS in order to observe its operation. Disposal operations will not commence until the ETS to be used by the Contractor is certified by the COR to be operational and within acceptable accuracy. It is the Contractor's responsibility to select a system that will operate properly at the work location. The complete system shall be subject to the Contracting Officer's approval.

1.7.2 Data Requirements and Submissions

All data shall be collected and stored on 3-1/2 inch disks or CD-ROM in ASCII format using IBM-compatible MS-DOS 5.0 or later version. Data shall include date, time, trip ID number, vessel name and name of vessel's captain, location and draft of disposal vessel every 500 feet (at least) during loading cycle and during travel to disposal area, and every minute (at least) or every 200 feet of travel, whichever is smaller, while approaching within 1000 feet and within limits of disposal area. Data collected while the disposal vessel is in the vicinity of the disposal area shall also be plotted in chart form, in 200-foot intervals, to show the track and draft of the disposal vessel approaching, traversing, and leaving the disposal area. More than one disposal area trip may be stored on a single disk or CD ROM as long as trip data is indexed and clearly identifiable. The completed, original disk or CD- ROM shall be furnished to the COR within 24 hours. Plotted charts shall be organized and maintained at a central work location for inspection on a daily basis by the COR. Plotted charts shall be organized as directed, bound and submitted weekly to COR for permanent file record.

1.7.3 ETS

The ETS for each disposal vessel shall be in operation for all dredging and disposal activities and shall record the full round trip for each loading and disposal cycle. The Contracting Officer shall be notified immediately in the event of ETS failure and all dredging operations for the vessel shall cease until the ETS is fully operational. Any delays resulting from ETS failure shall be at the Contractor's expense.

1.8 REFERENCE HORIZONTAL CONTROL DATA

At the preconstruction conference, the Government will provide project control from which hydrographic surveys may be extended. This control shall be presumed to meet the accuracy requirements in EM 1110-2-1003. The Contractor shall immediately notify the Contracting Officer if existing control points have been disturbed. In the event new station monumentation is required to perform the work, new stations shall be monumenteted in accordance with EM 1110-1-1002 criteria, and an equitable adjustment will be made to the contract.

1.9 DEPTH MEASUREMENT PROCEDURES AND CALIBRATION

1.9.1 Depth Measurement Precision and Accuracy

Depth measurements including depth observation precision and resolution shall meet the vertical accuracy standards prescribed in EM 1110-2-1003.

1.10 VERTICAL REFERENCE DATUMS

Depth measurements shall be reduced to the specified datum using concurrent staff/gage readings, as described in EM 1110-2-1003. Tide staffs/gages shall be constructed, referenced, maintained, stilled, and read in accordance with the criteria in EM 1110-2-1003.

1.11 FIELD DATA RECORDING, REDUCTIONS, ARCHIVING, AND PLOTTING REQUIREMENTS.

The data format fields for submitting reduced hydrographic data is x y z. The topographic and feature data shall conform to the intergraph general 3D design file formats specified in the reference. Digital data shall be contained on a 3.5 inch floppy disk or CD-ROM.

1.12 VOLUME COMPUTATIONS

The Contractor shall have the capability to compute excavation quantities from work performed under this contract. The Government will furnish construction templates and limits from which volumes are to be computed using any of the techniques given in EM 111O-2-1OO3. Section drawings shall be made at the horizontal and vertical scales given in EM 1110-2-1003.

1.13 MISCELLANEOUS QUALITY CONTROL PROCEDURES

1.13.1 Automated System Synchronization Checks

Each automated hydrographic survey system shall be checked to insure adequacy of correlation between position and depth. Methods for performing this check are given in EM 1110-2-1003.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 CONTRACTOR SURVEYS

3.1.1 Personnel

3.1.2 Contractor Quality Control Surveys

The Contractor shall examine his work by conducting hydrographic surveys at no more than 30-day intervals, upon completion of separable portions of the work, and upon completion of the entire work. Contractor quality control surveys shall also be performed and submitted to the Contracting Officer prior to any request for a Government survey for final acceptance. The Contractor shall prepare survey maps based on the results of these surveys. These maps shall be used, by the Contractor, to satisfy himself of the effectiveness of his operations. Attainment of contract depth shall be verified, and a comparison of actual progress and in-place quantities dredged with scheduled progress shall be performed. Contractor surveys will not be used for final payment or acceptance. See Section 02325 DREDGING for additional Contractor survey requirements.

3.1.3 Bathymetric Surveys at CAD Cells

Bathymetric surveys of each CAD cell shall be conducted at the following intervals: 1) upon completion of removal of unsatisfactory material, 2) prior to placement of any material into the cell, 3) following the last placement of unsuitable material into the cell, 4) just prior to placing the cap, and 5) within 15 days after placement of the cap. A report including the data and an assessment of the data shall be submitted to the

Contracting Officer within 60 days of completion of the surveys. The assessment shall include contoured bathymetry and calculations of the total volume of material placed in each CAD cell.

3.1.4 Contractor Progress Payment Surveys

The Contractor shall conduct surveys for any periods for which progress payments are requested. The Contractor will make the computations based on these surveys. All surveys accomplished by the Contractor shall be conducted under the direction of the Contracting Officer, unless the Contracting Officer waives this requirement for each specific instance. Promptly upon completing a survey, the Contractor shall furnish the all data relating to the survey to the Contracting Officer, who will use the data as necessary to determine the amount of progress payments.

3.2 GOVERNMENT SURVEYS

3.2.1 Government Quantity Surveys

The Contracting Officer will conduct the original and final surveys for all dredging areas and make all quantity computations based on those surveys. The surveys will be performed at no expense to the Contractor, except as noted in paragraph "Final Examination and Acceptance" below and as specified in Section 02325 DREDGING. The Contractor shall give a minimum of 3 days notice before completion of a portion of the work requiring a post-dredge survey. A minimum of 2 days will be required by the Government for completion of each of the post-dredge surveys at the site and another 10 to 15 days for calculation of quantities removed and verification of completion of work.

3.2.2 Government Quantity Calculations

All quantity estimates for dredged material removed will be determined using either single beam or multi-beam survey technology. If single beam technology is used, all edited sounding information obtained from Government pre and post dredge surveys will be used in determining the payable quantity of dredged material removed. If multi-beam survey technology is used, then a 3-foot by 3-foot matrix using the sounding closest to cell center (shot depth) will be generated from the edited multi-beam data and used in determining the payable quantity of dredged material removed. A Digital Terrain Model (DTM) will be created from each of the pre and post dredge surveys. A channel design template will be created at the required dredging depth and at the total allowable overdepth. Each of the channel design templates will be compared with the pre dredge DTM to determine the available quantity of required dredge material and available quantity of overdepth material. The same channel design templates will be compared to the post dredge DTM to determine the quantity of material remaining above the required dredging depth and the quantity of material remaining above the total allowable overdepth. The quantity of required dredged material removed will be derived from these comparisons. If the "box-cutting method of dredging is used to remove dredge material contained in side slopes where "box-cutting is permitted, the channel design templates will be modified to include a "box-cut" width. In all cases, the same channel design templates will be used to determine both the pre and post dredge quantities. Material removed below the total allowable overdepth will not be included in the payable quantity of material.

3.2.3 Final Examination by the Government

a. Submission of all Contractor quality control survey data, including plots, is required prior to performance of final examination and acceptance surveys by the Government.

b. As soon as practicable after completion of the entire work or any section thereof such work will be thoroughly examined at the cost and expense of the Government by sounding or sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination the Contractor will be required to remove same by ~~dragging the bottom or by~~ dredging at the contract rate for dredging, but if the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived by the discretion of the Contracting Officer. Dragging the bottom to remove lack of contract depth will not be permitted.

The Contractor will be notified when soundings and/or sweepings are to be made, and may be permitted to accompany the survey party if approved by the Contracting Officer. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for removal of shoals disclosed by a prior sounding or sweeping, the cost of such third and any subsequent sounding or sweeping operations will be charged against the Contractor. The rate for each day in which the Government survey plant is engaged in such sounding or sweeping operations and/or is en route to or from the site, or is held, for the Contractor's convenience at or near the site for these operations, shall be $2,400.00.

3.2.4 Final Acceptance by the Government

Final acceptance of the whole or any part of the work, and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE WORK

SECTION 02325

DREDGING

-- End of Section Table of Contents --

SECTION 02325

DREDGING

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

CORPS OF ENGINEERS (COE)

COE EM-385-1-1	(1996) Safety and Health Requirements Manual

1.2 RELATED WORK SPECIFIED ELSEWHERE

1.2.1 Environmental Protection Requirements

Provide and maintain environmental protective measures during the life of the contract. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. See Section 01355 ENVIRONMENTAL PROTECTION.

1.2.2 Water Quality Monitoring and Testing

Water quality monitoring and testing will be performed by the Government at no cost to the Contractor. See Section 01135 WATER QUALITY MONITORING BY THE GOVERNMENT.

1.2.3 Underwater Diving Operations

In the event that underwater diving operations become necessary due to the work of this contract, such operations shall be conducted in accordance with CORPS OF ENGINEERS (COE) COE EM-385-1-1 Section 30.

1.3 DEFINITIONS

1.3.1 Suitable Maintenance Material

Suitable maintenance material is defined as organic silty sediments suitable for open water disposal that have accumulated within the areas to be dredged since the last maintenance dredging project. Suitable maintenance material is designated on the drawings. The suitable maintenance material also includes accumulated silty sediment material that sloughs off the side slopes.

1.3.2 Unsuitable Maintenance Material

Unsuitable maintenance material is defined as organic silty sediments, unsuitable for open water disposal that have accumulated within the areas to be dredged since the last maintenance dredging project. Unsuitable maintenance material is designated on the drawings. The unsuitable material also includes sediment material that sloughs off the side slopes from the indicated zones of unsuitable material.

1.3.3 Native Material

Native material is defined as the inorganic silts, sands, and gravel generally located under the maintenance material. Native material shall be removed during the construction of the In-Channel Confined Aquatic Disposal (CAD) cells and from other areas as specified in this Section, and as indicated on the contract drawings.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Work Plan; G, E.

Submit a work plan for construction of the in-channel CAD cells, channel dredging, and ocean and upland disposal of material. At a minimum, the work plan shall include the following items: anticipated plant and types of equipment, dredging sequence and time schedule, CAD cell locations, CAD cell capacity, temporary material storage methods and locations, expected coordination requirements, survey requirements, material placement for open water and upland disposal, proposed measures for protection of structures, proposed measures to avoid overdredging, and proposed methods for ensuring the removal of all maintenance material prior to dredging the underlying native material.

Enclosed, Clamshell Bucket Performance Data; G, C.

Submit Enclosed Clamshell Bucket Performance Data to the Contracting Officer of approval before commencement of work.

Debris Management Plan.

A debris management plan shall be developed as specified in this section and submitted to the Contracting Officer for review.

Inspection of Disposal.

Submit names of inspectors certified by the Corps of Engineers to be used for monitoring disposal activities for the Government.

Scows.

Submit scow cards for each scow to be used for contract work. Scow cards shall have information specified in paragraph "Scows."

SD-05 Design Data

Equipment and Performance Data.

Furnish proof of electronic positioning equipment calibration to the Contracting Officer.

Daily/Monthly Report of Operations.

Prepare and submit two (2) copies of the Daily Report of Operations, using ENG Form No. 4267, for each dredge. This report shall be submitted on a daily basis. A copy of this form is appended to the end of this Section. In addition to the daily report, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's work on ENG Form No. 4267. The monthly report shall be submitted to the Contracting Officer on or before the seventh day of each month, consolidating the previous month's work. Upon completion of the project, the Contractor shall submit a consolidated project report, combining the monthly reports.

Additionally, one copy of the reports shall be maintained by the Contractor on the dredge(s) for the Contracting Officer's inspection purpose. Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

Disposal Positioning Plan; G, C.

Submit a disposal positioning plan, which details the method proposed to position the scows over the disposal cells and to locate the limits of the disposal cells which may be DGPS, laser technology or other means of identifying the scows position and orientation before disposal. A means of visually verifying location, such as computer imaging, shall be integral with the positioning system.

The detailed plan outlining the methods to be used to ensure disposal barges are within the boundaries of the disposal cell during sediment discharge must be submitted to the Contracting Officer for review and approval prior to the commencement of any disposal into the CAD cells.

Cell Capping Plan; G, E.

Submit a cell capping plan defining the sequence and schedule of events, proposed equipment to be used, and the methods to be employed to ensure the proper capping of cells as specified. The plan shall also include the Contractor's proposed methodology to determine the cap thickness and extent of coverage.

Cell Cap Thickness and Coverage Determination Data; G, E.

Submit cell capping thickness and coverage determination data for each cell capped, within 14 days of completion of data collection. Include the data collection methods used and the results obtained in a report format. Provide a certification for each cell that the cell construction is in compliance with the performance requirements of these specifications. If a cell is not in compliance, then state the materials and methods proposed to achieve compliance.

1.5 NOTIFICATIONS

1.5.1 Notice of Misplaced Material

The Contractor shall notify the Contracting Officer and the U.S. Coast Guard Marine Safety Office within 24 hours of any misplaced material.

1.5.2 Notice of Need for Dredging Survey

The Contractor shall give 14 days advance notice, in writing, to the Contracting Officer of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section.

1.5.3 Relocation of Navigation Aids

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Coast Guard District Commander, in writing, with a copy to the Contracting Officer, 30 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate the dredging operation. A copy of the notification shall be provided to the Contracting Officer.

1.5.4 Providence River NOAA Current Meter (ADCP)

The Contractor shall contact Larry Neeson, NOAA field coordinator for Narragansett Bay PORTS, at 757-436-0200 a minimum of 30 days before start of work in the vicinity of the current meter in the Fox Point Reach for removal of the ADCP. NOAA will remove the ADCP before commencement of dredging in the area.

1.5.5 Corps Environmental Resources Section

The Contractor shall notify Larry Oliver (978-318-8347) of the Corps Environmental Resources Section a minimum of 10 days prior to the initial disposal of material into the CAD cells.

1.6 WORK AREA

1.6.1 Access

The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the areas to be dredged, any mooring areas provided the Contractor, and disposal areas. The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

1.6.2 Interference with Navigation

Minimize interference with the use of channels and passages. The Contracting Officer will direct the shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels and floating equipment, if necessary. The Contractor shall comply with all requests from the Contracting Officer to move or interrupt dredging operations for a reasonable time period at no additional cost to the Government.

1.6.3 Protection of Existing Waterways

The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas

being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the material must be promptly removed.

1.6.4 Adjacent Property and Structures

The Contractor shall conduct the dredging operation such that it does not undermine, weaken or otherwise impair existing structures located in or near the areas to be dredged. Dredging restrictions and setbacks are defined in Article "Restrictions for Dredging Operations at CAD Cells." The Contractor shall investigate the existing structures at the site and plan the dredging work accordingly.

Damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Damage to structures resulting from the Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

1.6.5 Artificial Obstructions

The Contractor may encounter bottom debris such as, but not limited to, pieces of broken cable, rope, miscellaneous metal, and broken and derelict moorings. The Government has no knowledge of existing wrecks, wreckage, or other artificial obstructions of such size or character as to require the use of explosives for its removal. However, special or additional plant may be required for economical removal of some items, such as boulders. During dredging operations, the Contractor shall remove all debris encountered. Floating debris removed from the dredging area shall be separated and stockpiled for disposal. Disposal in accordance with local, Federal, and State laws and regulations shall be the responsibility of the Contractor. In case the actual conditions differ from those stated or shown, or both, an adjustment in contract price or time of completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

1.6.6 No Dredge Zones and No Spud Zones

When dredging adjacent to the "No Dredge Zones" indicated on the drawings, the Contractor shall install buoys delineating the outline of the no dredge areas to be protected. "No Spud" areas are marked on the contract drawings for protection of known utilities.

]1.6.7 Protection of Utility Lines

Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to dredging, and that are to be retained, shall be protected from damage during dredging, and if damaged, shall be satisfactorily repaired by the Contractor at no additional cost to the Government. Prior to commencement of dredging, the Contractor shall coordinate with the Contracting Officer and the applicable utility company to mark the locations of existing utilities, and establish in detail the proposed method of protecting the existing utilities. In the event that the Contractor damages any existing utility lines that are not shown on the drawings or the locations of which are not known to the Contractor, report shall be made immediately to the Contracting Officer.

If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs will be ordered under the Contract Clause entitled "DIFFERING SITE CONDITIONS."

1.7 MATERIAL TO BE DREDGED

1.7.1 Material to be Dredged

Dredged material is referred to in these specifications as either suitable maintenance material, unsuitable material, or native material. The material to be removed to accomplish the specified dredging work is anticipated to be organic silt, inorganic silts, sands, and gravel. Due to the general geology of the area and the large extent of dredging in the CAD Cells, the Contractor may expect to encounter localized areas of glacial till deposits. The Contractor is expected to examine the site of the work and determine the character of the materials to be dredged.

1.7.2 Results of Subsurface Explorations

Subsurface explorations to determine the character of materials to be removed have been made by the Government in the locations of the CAD cells only. The locations of the borings, typical cross sections and strip logs of the borings are shown on the drawings. See Section 00320 GEOTECHNICAL DATA.

1.8 QUANTITY OF MATERIAL

The total estimated amount of material to be removed from within the specified limits, including side slopes and allowable overdepths is shown on the Bidding schedule. The estimated quantity for bidding purposes and for application of the "FAR 52.212-11, Variation in Estimated Quantity" shall be the total quantity, including overdepth. The quantities listed are estimates only. Within the limits of available funds, complete the work specified whether the quantities involved are greater or less than those estimated.

]1.9 OVERDEPTH AND SIDE SLOPES

1.9.1 Required Depth

The material actually removed from within the specific areas to be dredged to a depth of not more than the required depth shown on the drawings, plus the allowable overdepth, will be estimated and paid for in accordance with the provisions contained in Section 01270 MEASUREMENT AND PAYMENT. For construction of CAD cells, overdepth measurement and payment will not be made for material excavated below the cell limits specified in Section 01270 MEASUREMENT AND PAYMENT, and for sideslopes.

1.9.2 Allowable Overdepth

To cover unavoidable inaccuracies of dredging processes, material removed to the overdepth shown on the drawings, for specific areas to be dredged, and within the dredging limits will be measured and paid for at full contract price in the same manner as specified for the overlying dredged material.

1.9.3 Side Slopes

Side slope dredging will be required. Sideslopes in areas of suitable

maintenance material may be dredged in the original position or by dredging the space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. Side slopes in areas of unsuitable maintenance material shall be formed by step cutting. Box cutting along side slopes when dredging unsuitable material will not be permitted. Payment will not be made for material in excess of the amount originally lying above the pay slope plane. The limiting amount of side-slope overdepth will be measured vertically. The above is not to be taken as a guarantee that all slopes will stand on the slopes shown on the drawings. The Contractor shall make his own determination as to what the angle of repose will be on all side slopes.

Dredging on side slopes shall follow, as closely as practicable, the lines indicated on the drawings. An allowance will be made for dredging beyond the lines indicated or specified for side slopes. The allowance will be determined by projecting a line upwards, paralleling the project design side slopes, from the intersection of the overdepth dredging limit at a point located vertically below the limit of dredging at the top of slope. The amount of material excavated from side slopes will be determined by either cross-sections or computer, or both.

1.9.4 Excessive Dredging

Material taken from beyond the limits as extended in the Article "OVERDEPTH AND SIDE SLOPES" above will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side-slope dredging for which payment will not be made.

1.10 DEBRIS MANAGEMENT PLAN

A debris management plan shall be developed, reviewed by the Contracting Officer and followed by the Contractor. Debris removed from the bottom during dredging operations, which is not suitable for disposal at the Rhode Island Sound Disposal Site (RISDS), shall be collected and removed from the site. Unsuitable materials include large items such as timbers, pilings, sections of piers, and metallic debris. Generally, all floating debris and bottom debris larger than 10 feet in any dimension will be considered unsuitable for disposal in CAD cells or ocean dumping. Each day during dredging operations, the Contractor shall use a boat to collect and remove floating debris resulting from project activities. Floating debris shall also be removed from within barges, if applicable. Debris removed from the bottom during dredging operations, shall also be collected and removed from the site. Where pilings or other debris is found to interfere with the enclosed clamshell bucket closure or equipment operation, a conventional clamshell bucket may be used to extract the pilings/debris. Abandoned piles shall be cut or broken off rather than extracted. Sediment removal during such activity shall be minimized to the greatest extent practicable. Containers for temporary storage of the collected debris shall be maintained on the dredge or support barge.

1.10.1 Release of Oily Material

All oily material released during dredging or other project activity shall be promptly collected and disposed at a licensed facility.

1.11 INSPECTION

Inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended

purpose. See Section 01451 CONTRACTOR QUALITY CONTROL.

1.11.1 Communication During Dredging Operations

The Contractor shall provide the Government sampling and monitoring crew with a portable two-way radio to notify the dredging crew when the dredging operation is causing unacceptable levels of turbidity in the water column. This is essential to limit transport of unsuitable sediments out of the dredging area. Also provide portable two-way marine radios for communications between the dredge crew, the disposal inspector, and the Contracting Officer.

1.11.2 Transportation

The Contractor shall furnish, at the request of the Government Representative, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the equipment or marine plant as may be reasonably necessary in inspecting and monitoring the work. The Contractor shall furnish, on the request of the Government Representative, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and the work site.

1.12 INSPECTION OF DISPOSAL

No disposal shall be done unless a Corps of Engineers Certified Inspector is present. The inspector shall be available on a full-time basis to cover all phases of operations in connection with disposal of the dredged materials.

The Contractor shall be responsible for and provide qualified disposal inspection services at no additional cost to the Government. The Contractor shall notify the Contracting Officer of the names of the Corps of Engineers Certified Inspectors to be used prior to commencement of work. Every discharge of dredged material must be officially witnessed and properly documented by an onboard inspector who has been trained by, and who holds a current certification from the New England District, Army Corps of Engineers. Failure to adhere to this requirement will be considered a serious violation of this contract and cause for an immediate stop-work order by the Contracting Officer and which could precipitate substantial penalties including but not necessarily limited to fines, withholding of funds and non-payment due to misplaced materials.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 DREDGING PLANT AND ASSOCIATED EQUIPMENT

3.1.1 Dredging Plant

All dredging under this contract shall be performed using a mechanical type dredge. Dredge all suitable and unsuitable maintenance material from all reaches of the Federal channel and harbor using an enclosed clamshell bucket dredge and allow no overflow of the scow while it is being filled. Native material, not identified as unsuitable, may be excavated using a conventional bucket. Hydraulic dredging will not be permitted.

3.1.2 Enclosed Clamshell Bucket

Dredging of suitable and unsuitable maintenance material, in the areas indicated on the drawings, shall be performed using an enclosed clamshell bucket. The dredge bucket shall be designed to completely enclose the dredged sediment and water captured. The bucket shall not have teeth. This is to prevent the bucket from digging into the harder native material. The bucket shall be equipped with escape valves which shut when the bucket is withdrawn from the water column. Submit Enclosed, Clamshell Bucket Performance Data to the Contracting Officer for approval before commencement of work.

3.1.2.1 Enclosed Clamshell Bucket Control

The Contractor shall demonstrate that the dredge operator has sufficient control over bucket depth in the water and bucket closure so that sediment re-suspension from bucket contact with the bottom and due to bucket over-filling can be minimized.

3.1.2.2 Verification of Unsuitable Maintenance Material Removal

The Contractor shall use an enclosed, clamshell bucket to dig to the specified depth of cut shown on the drawings or until refusal in the native material. Diligent efforts are required to ensure that all unsuitable maintenance material is removed by the enclosed clamshell bucket before dredging of the underlying native material with a conventional bucket at the CAD cells. The Contractor shall verify that all unsuitable maintenance materials have been removed from an area before Government surveys are performed and commencement of dredging native material. Such verification may be by survey, by observing the enclosed clamshell bucket as it exits the water, and by care to dredge only to the indicated depth of cut, or by other means as approved by the Contracting Officer.

3.1.2.3 Equivalent Alternative Dredging Technology

Alternatives to the enclosed clamshell bucket technology for the removal of unsuitable maintenance materials will not be considered under this contract.

3.1.3 Tow Boats

All tow boats used for towing to disposal areas shall be equipped with DGPS navigational equipment, radar, corrected compass, marine radio, and depth sounding equipment which is to be maintained in operating condition during each tow. The tow boats utilized by the Contractor for this purpose shall be of a size adequate for towing in heavy seas and shall have necessary reserve power for maneuvering with scows in rough seas and under emergency conditions as well as for control of scows at the disposal point.

3.1.4 Scows

a. Water and dredged materials shall not be permitted to overflow or spill out of scows when dredging maintenance material. Failure to repair leaks or change the method of operation which is resulting in overflow or spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging. Overflow of scows will be permitted when dredging sand and gravel material for construction of CAD cells.

b. The Contractor shall provide and maintain markings on all scows clearly

indicating the draft of the scow and shall provide scow cards for each scow used on the contract work. The scow cards shall show dimensions and volumes of individual pockets of scows and total volumes for varying depths below coaming or top of pockets. This is to enable Government personnel to make a determination of scow volume and corresponding drafts under partial and full load conditions. These measurements are to be made at the time of initial use of each scow. This information will then be furnished to disposal inspectors to enable them to estimate scow volume from draft of scows for each scow being towed to the disposal area. The scow volume estimates are for use in connection with disposal area monitoring studies and are not intended to be used in determining quantities dredged. At the beginning of the work and as additional scows arrive on the project, sufficient time shall be allowed by the Contractor and assistance of Contractor personnel shall be made available by the Contractor for the purpose of obtaining the measurements of each scow under various partial and full load conditions. During the entire period of contract work, the Contractor shall provide and maintain sufficient spot or floodlights to permit the reading of the draft on the sides of scows at bow and stern from the tow boat at night and when visibility is impaired. The draft readings and each pocket/compartment measurement will be required for each scow towed to the disposal area and will be made by the disposal inspector. Measurements are to be taken and recorded prior to departure from the dredge site and upon arrival at the immediate disposal location. The Contractor shall ensure that adequate time is allowed by the tow boat captain for these readings to be obtained.

c. Due to the fine nature of the dredged material, the Contractor shall achieve proper closure and watertightness of pocket doors to eliminate seepage or leakage of material. The use of plastic material to cover cracks in scow pockets will not be allowed.

3.1.5 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.2 ORDER OF WORK

The Contractor shall start and complete the work in the order of precedence in accordance with the Contractor's approved "Progress Schedule" required by Section 01110 SUMMARY OF WORK. Environmental and operational criteria relative to the preparation of a work sequence and time schedule are listed below. The Government reserves the right to change the order of work at any time.

3.2.1 Environmental Criteria Relative to Dredging

a. Dredging and disposal work shall not be performed north of Fields Point (Fox Point and upper Fuller Rock Reaches) from February 1 through April 30, inclusive of any year, as indicated on the drawings.

b. Dredging and disposal work shall not be performed between Bullock Point and 3,500 feet downstream of Conimicut Point from February 1 through March 30, inclusive of any year, as indicated on the drawings.

c. Dredging and disposal work shall only be performed at the portion of the Rumstick Neck Reach beginning approximately 1,300 feet down stream from its northernmost limit to the downstream limit of dredging during March and April, inclusive of any year, as indicated on the drawings. See Article "b" above for an additional restriction during March at this upper 1,300 feet of the Rumstick Neck Reach.

d. Dredging and disposal work shall not be performed between Sabin Point and Conimicut Point from June 1 through July 14, inclusive of any year.

e. During all disposal operations, the Contractor shall wait a minimum of one hour between the dumping of each individual scow load within a 1/2 nautical mile radius of the dumping location, or at specific coordinates provided by the Contracting Officer.

f. The Government will be conducting water column sampling and analysis at various times and locations during dredging and disposal operations. The Contractor shall cooperate with sampling personnel and conduct its disposal operations for sampling events as specified in Section 01135 WATER QUALITY MONITORING BY THE GOVERNMENT.

3.2.2 Operational Criteria Relative to Dredging

a. Dredge suitable and unsuitable material for all reaches of the federal channel and harbor using an enclosed clamshell bucket dredge and allow no overflow of the scow while it is being filled.

b. An open bucket may be used to dredge the native silt, sand, and gravel material from the CAD cells. Overflow of the scow while sand and gravel only are being removed from the CAD cells is permissible.

c. Dredge and temporarily store unsuitable materials from the CAD starter cell. Temporary storage of the unsuitable material shall be the Contractors responsibility. Unsuitable material overlying the area of the initial in-channel disposal cell shall be dredged using an enclosed clamshell bucket and the material temporarily stored in tight scows or other suitable containers within a reasonable distance of the disposal cell.

d. Dispose of the sand and gravel materials excavated to create the CAD cells for the following uses:

(1). Place approximately 215,000 cubic yards of native sand and gravel materials within the upland disposal site. The material disposed at the the Johnson and Wales (J&W) upland disposal site will be limited to mechanical offloading. Hydraulic offloading of dredged material will not be permitted.

(2). Place the remainder of the native sand and gravel materials from the CAD cells at the RISDS as a cap material.

e. Dispose of unsuitable maintenance materials from the Fox Point and Fuller Rock Reaches in the in-channel CAD cells.

f. Dredge the suitable maintenance material from the Upper Fuller Rock Reach, as shown on the drawings,and use the dredged material to cap the CAD cells after the disposal of unsuitable material in the CAD cells is complete. Also, allow the unsuitable maintenance materials in the CAD

cells to consolidate for a minimum of 30 days before the caps are placed. The CAD cells shall be capped with a minimum of one to not more than three feet of suitable material.. Further, there shall be no mechanical disturbance of the cell caps by means including but not limited to drag bar, clamshell bucket, and barge spudding, unless such disturbance is pre-approved by the Contracting Officer.

g. At the Rhode Island Sound Disposal Site (RISDS), place all suitable maintenance materials from all reaches of the federal channel, except as noted below. The Contracting Officer will direct the Contractor's disposal operations at the RISDS to require placement of dredged material from lower reaches with lower concentrations of contaminants and silt to be placed on top of and cap the dredged material from upper reaches.

h. Limit disposal quantities at RISDS of the suitable material removed from the lower Fox Point/Upper Fuller Rock reaches, between Kettle Point and the southern end of the Mobil Terminal, to 3,000 cubic yards per dumping event to avoid exceeding water quality criteria.

i. Contract depth shall be achieved by mechanically dredging the bottom using a clamshell bucket. Dragging the bottom to remove lack of contract depth, using a steel beam or similar equipment, will not be permitted.

3.2.3 Restrictions for Dredging Operations at CAD Cells

a. Wilkes Barre Pier - The site is located on the easterly side of the navigation channel adjacent to CAD Cell 3AR. A dredging restriction will be imposed to limit the dredge elevation depth to -70 MLLW within a distance of 250 feet of this structure.

b. Promet Corporation Pier (Formally known as State Pier No 1) - The site is located on the westerly side of the navigation channel adjacent to CAD Cell 6R. A dredging restriction will be imposed to limit the dredge elevation depth to -70 MLLW within a distance of 250 feet of this structure.

c. Providence and Worcester Railroad South Quay Site - The site is located on the easterly side of Cells 4R and 5R. A dredging restriction of 400 feet will be imposed from the easterly edge of the CAD cells to the mean low water line.

d. Other named and unnamed piers and wharves, shown on the drawings, will also require similar restrictions as described above.

e. See Section 01270 MEASUREMENT AND PAYMENT, Article OPTION ITEM: Item No. 0009, Additional CAD Capacity Construction with Ocean Disposal of Dredged Material. If the Option Item is exercised by the Government, allow non-Federal dredging projects to dispose of their material in CAD cell Number 3AR, as directed by the Contracting Officer. The non-Federal dredging projects will be required to have permits from the Corps of Engineers and 401 Water Quality Certifications from the State of Rhode Island to preform their dredging and to dispose the dredged material in Cell 3AR. The Contractor for this work shall coordinate his construction activities with the Contractors performing the non-Federal dredging projects. In case of dispute regarding work operations or the use of work areas, resolution will be by the Contracting Officer and his decision shall be final.

f. The Contractor shall start and complete the Cell construction and Cell filling work in the order of precedence in accordance with the Contractor's approved "Progress Schedule" required by Section 01110 SUMMARY OF WORK. In order to allow time for non-Federal projects to obtain the required permits and approvals to dispose dredged material in Cell 3AR, the Contractor shall schedule Cell number 3AR to be the last Cell constructed. Cell 3AR shall be capped following disposal of dredged material under this contract and by the non-Federal projects.

3.3 METHOD OF DISPOSAL

3.3.1 General

a. Provide for safe transportation and disposal of dredged materials. Transport and dispose of suitable dredged material at the RISDS, the upland disposal sites, and for capping material at the CAD cells, as indicated. Dispose of all unsuitable maintenance material within the CAD cells, as indicated. Except as otherwise authorized by the Contracting Officer in writing, no dumping shall be done unless an inspector appointed by the Contracting Officer is present at the time.

b. Deposit dredged material by self-dumping scow or barge. Do not remove loaded or partially loaded scows or barges from the dredge area until the load has been measured by the Contracting Officer. Notify the Contracting Officer when scows or barges are returned to the dredge area.

c. Misplaced Material Disposal: Material that is deposited elsewhere than in locations designated or approved by the Contracting Officer will not be paid for and the Contractor shall be required to remove such misplaced material and deposit it where directed at his expense.

3.3.2 Rhode Island Sound Disposal Site (RISDS)

a. The location of the RISDS is shown on the drawing attached at the end of this section. The RISDS is located approximately 13 miles south of the entrance to Narragansett Bay and 2 miles west of Site 69a, Jamestown Bridge Reef. The site center is located at 41°13′51″N; 71°22′49.16″W, datum NAD 83. Corner coordinates of this site are located at:

41°14′21.27″N 71°23′28.82″W
41°13′21.24″N 71°23′28.92″W
41°13′21.16″N 71°22′09.41″W
41°14′21.19″N 71°22′09.29″W

b. Ocean tugs towing loaded scows to the RISDS shall follow the Providence River Channel to the mouth of Narragansett Bay and then follow the shipping lanes in Rhode Island Sound to reach the site. This site is located 36 miles from Providence Harbor (i.e., Fox Point Reach).

c. The Contracting Officer will provide the Contractor with the coordinates of the locations within the RISDS for the dumping of each scow or group of scows. Whenever practicable, the Contracting Officer will require placement of dredged material from lower reaches with lower concentrations of contaminants and silt to be placed on top of and cap the dredged material from upper reaches. All disposal shall be done at the specified coordinates with the scow at a complete halt. This requirement must be followed except when weather or sea state create unsafe conditions, in which case disposal within 100 feet of the specified coordinates with

the scow moving only fast enough to maintain safe control (generally less than one knot) will be permitted. Disposal shall not be attempted if the above conditions cannot be met. Anticipated weather conditions shall be determined prior to departing for the disposal site.

3.3.3 Upland Disposal

a. The native sand and gravel material excavated from the CAD cells shall be transported in scows, off-loaded and disposed in the upland diked disposal area at the location shown on the drawings. The material disposed at the J&W upland site will be limited to mechanical offloading. No hydraulic equipment will be allowed.

The upland disposal area shall be constructed by the Contractor in accordance with Section 02330 UPLAND DISPOSAL AREA CONSTRUCTION. Except as otherwise authorized by the Contracting Officer in writing, no disposal of dredged material at the upland site shall be done unless a representative of the Contracting Officer is present at the time.

b. In depositing excavated material in the diked disposal area, provide and maintain necessary bulkheads, dikes, ditches, weirs, spillways, and other construction to confine and retain the fill in the areas and to facilitate dewatering of the material. Off-loading of dredged material into the disposal area shall be controlled and restricted to prevent overtopping the disposal area and to prevent exceedance of the specified water quality standards.

3.3.4 Alternative Disposal Sites

Bids received shall be based on utilizing only the above described areas. Alternate areas will not be considered until after the award of the contract. If, after the award of the contract, a disposal area other than that stipulated in these specifications is proposed, its acceptance will be subject to the approval of the Contracting Officer after an adjustment of the contract price if found necessary by the Contracting Officer to protect the Government interest. The Contractor shall obtain the written consent of the owners of the substitute grounds and furnish evidence thereof to the Contracting Officer. All expenses incurred in connection with providing and making available such disposal areas shall be borne by the Contractor, and all materials deposited thereon, and all operations in connection therewith, shall be at the Contractors risk. Comply with rules and regulations of local port and harbor governing authorities.

3.4 SHOALING

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, redredging at contract price, within the limits of available funds may be done if agreeable to both the Contractor and the Contracting Officer.

3.5 FINAL CLEANUP

Final cleanup shall include the removal of all the Contractor's plant and equipment either for disposal or reuse. Plant, equipment, and materials to be disposed of shall only be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area or other areas adjacent to the worksite.

Failure to promptly remove all plant, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right to remove any plant, equipment, and materials at the Contractor's expense.

-- End of Section --